

N. H., N. Y. 17th, Me., N. H., N. Y., S. C. 18th, Kan., Mich., N. Y., Tenn., Neb., Dak. 19th, Me., N. H., N. Y., Tenn., Vt., Wyo. 20th, Del., Me., Mich., N. Y., Ohio, Penn., N. J., Ill., Va., Fla., N. H., Ga. 21st, Del., Me., N. Y. 22nd, Conn., Me., Mass., Neb., N. H., N. Y., Ohio, Penn. 23rd, Ind., Mich., Vt., Wis., N. H. 24th, Del., Ind., Mich., Wis., Iowa, Fla., R. I. 25th, Conn., Neb., N. H., N. Y., Me., R. I. 26th, Ohio, Tenn. 27th, Cal., Kan., Miss., Tenn., Texas, Ind. Ty. 28th, Iowa, Neb., Tenn., Wis. 29th, N. Y. 30th, Ohio, Ga. 31st, Cal., Conn., Del., Me., N. H., N. J., N. Y., Vt., S. C., Tex., N. C.

Lunar Halos.—1st, Del., Md., N. J., N. Y., Ohio, Iowa, Va., Conn., Pa. 2nd, N. J., Tenn. 4th, Va., 5th, Penn. 7th, Ind., Penn., Va. 12th, Va., Me. 18th, Cal., Kan., Mich. 19th, Ind., Iowa, N. Y., Kan., N. C. 20th, Cal., Conn., Iowa, N. H., N. Y., Ohio, Vt., N. C., W. Va., La. 21st, Me., Nebr., Wis., N. Y., Dak. 22nd, Cal., Dak., Ill., Ind., La., Me., Mich., Miss., Nebr., N. Y., Minn., Vt., Tex., N. H. 23rd, Conn., Del., Ga., Ind., La., Me., Mass., Nebr., N. H., N. J., N. Y., Wis., Mich., Minn., Tenn., N. C., Cal. 24th, Fla., Ill., N. H., N. Y., Penn., Mich., Wis., W. Va., Ga., N. C., Kan. 25th, Cal., N. Y., Tenn., Vt., Dak., Me., Ind. Ty., N. H., Mo., Kan. 26th, Cal., Ill., Mich., Mo., Ohio, Tenn., N. Y., Minn., Tex., Ala., Kan. 27th, Mo., Tenn., Utah, Tex., Ind. Ty., Fla., Ala., N. C., Kan. 28th, Iowa, Mo., Tenn., Utah, Minn., Kan., Ala., La., N. C. 29th, N. C., Tenn., Wis., Ky., Ga., Miss. 30th, N. Y., Ohio, Va., N. C. 31st, Ga., N. C.

Mirage.—5th, Sedgewick, Kan.; 6th and 10th, Tybee Island, Ga.; 9th, Galveston, Tex.; 12th, Dodge City, Kan.

MISCELLANEOUS PHENOMENA.

Zoological.—*Wild Geese* were observed on the 1st in Kan., flying S., Indian Ter. and Neb., N., Ill. —; 2nd, —, Va., Kan. and Mass., N., Iowa, N. and E., Mo., S.; 3rd, Tenn., N.; 4th, Va., N.; 5th, Ohio, S.; 6th, Tenn., N.; 7th, Mass., N.; 8th, Ohio, S.; 9th, N. Y., S.; 10th, Mo., N.; 11th, Kan., NE.; 12th, Ind., SE.; 13th, Iowa and Kan., S.; 17th, Tex., N.; 18th, Kan., N.; 19th, Mo., N.; 20th, Ohio, —; 23rd, Ind., —; 24th, Md., N. J. and Penn., N., Ohio, S.; 26th, Kan., N.; 27th, Tex., N.; Dak., —; 28th, Kan., N., Ind., —, Iowa, —; 29th, Kan., N., Iowa, N.; 30th, Kan., N. and S., Dak., N.; 31st, Iowa and Conn., N., Mich., N. W., N. H., —. *Wild Ducks* were observed on the 1st in Tenn., flying N., Ill. —; 2nd, D. C., S.; 7th, Kan., N.; 10th, Iowa, N.; 13th, W. Va., S.; 18th, N. Y., S.; 21st, N. C., N.; 25th, Iowa, E.; 27th, Md., N.; 30th, Ind. and Iowa, N.; 31st, Iowa, N. H. and Ohio, N. *Robins*, in Ill., on the 3rd, 22nd, 28th and 30th; Ind., 22nd; Iowa, 28th, 29th, 31st; Me., 28th, 31st; Md., 4th; Mass., 1st, 4th, 10th, 27th; Mich., 27th, 30th; N. H., 5th, 25th; N. J., 20th; N. Y., 4th, 21st, 23rd, 25th, 31st; Ohio, 7th, 8th; Penn., 4th, 24th; Utah, 24th; Vt., 26th, 31st; Va., 1st, 2nd, 5th; Wis., 28th, 29th; D. C., 2nd. *Blue birds*, Fla., 1st; Ill., 13th, 22nd, 27th; Ind., 22nd; Iowa, 10th, 24th, 28th; Me., 29th, 30th; Mass., 1st, 4th, 11th, 24th; Mich., 30th; Neb., 18th; N. H., 3rd, 24th; N. J., 7th; N. Y., 22nd, 23rd, 31st; Ohio, 2nd, 29th; Utah, 24th; Vt., 31st; Wis., 25th, 31st. *Blackbirds*, Conn., 29th; D. C., 2nd; Ill., 28th; Ind., 26th, 31st; Iowa, 28th, 31st; Ky., 19th; Md., 9th; Mass., 12th; Mich., 30th, 31st; N. H., 8th; N. Y., 26th; Ohio, 4th, 16th, 22nd, 27th, 31st; Penn., 7th; Tenn., 19th; Wis., 29th. *Meadow Larks*, Ill., 26th, 29th; Ind., 23rd; Iowa, 15th, 26th; Kan., 17th; Md., 5th; Mo., 27th; Neb., 20th, 23rd; N. H., 28th; Ohio, 22nd; Utah, 24th; Wis., 21st. *Martins*, Ind., 23rd; Iowa, 31st; Ky., 29th; N. C., 24th, 28th; Ohio, 31st; Texas, 3rd, 11th; Va., 31st; *Wild Pigeons*, Iowa, 29th, flying N., and 31st, —. *Song Sparrows*, Iowa, 3rd; Me., 31st; Mass., 5th; Wis., 26th. *English Sparrows*, at Fall River, Mass., and Newport, R. I. disappeared on breaking of cold weather. *Kill deer*, Del., 1st; Neb., 20th; N. Y., 25th; Ohio, 25th; Wis., 29th. *Doves*, Fla., 1st; Ohio, 12th. *Snipe*, Ill., 30th; N. Y., 3rd, 25th; Ohio, 25th. *Woodpeckers*, Mass., 27th; Ohio, 25th. *Cranes*, Southern Ill., flying N. and NE. nearly every day; Ind., 23rd; Kan., N., 6th and 17th; Neb., N., 17th, 28th. *Phoebe or Pewee bird*, Ind., 3rd; Iowa, 29th; Neb., 27th; N. Y., 25th; N. C., 28th; Vt., 31st. *Swans*, Iowa, flying S. W., 5th. *Plover*, Iowa, 30th. *Blue jays*, Iowa, 12th and 20th. *Yellow birds*, Mass., 10th. *Mocking birds*, Iowa, 15th; Ind. Ty., 13th; Va., 25th. *Swallows*, Ind. Ty., 15th. *Grasshoppers*, 30th, Brazos Co., Tex., are doing great damage to gardens and small grains, and seem to be increasing in numbers; 31st, in Bastrop Co. are destroying crops; Corsicana, Tex., (at close of month,) numerous and destructive, still too small to fly, are expected to migrate before cotton is large enough to be damaged; Dayton, Fla., hatching, 15th; Tabor, Ohio, estimated that in places 35 bushels of eggs are deposited per acre, the warm weather of Feby. developed near to hatching immense numbers of them, which it is believed were destroyed by the subsequent cold weather; Arkansas City and Sedgewick Kan., have begun to hatch; Peach Grove, Kan., ground in many places filled with eggs, and some have commenced hatching out. *Bees*, Mass., 31st. *Fishes*.—*Shad*, in the Yadkin river, N. C., 12th; *Herring*, first caught at Fall River, Mass., 2nd; Wappinger's Falls, N. Y., 30th. *Hair Seal*, killed near New Hamburg, N. Y., on the 21st.

Botanical.—*In bloom*.—*Peach trees*, in Tex., 4th; Ind. Ter., 20th; Tenn., 17th; Va., 25th, 28th and 31st; *Plum trees*, in Tenn., 22nd; *Cherry trees*, in Tenn., 17th; Va., 31st; *Apricot trees*, in Va., 26th; *Orange trees*, in Fla., 4th; *Maples*, in N. J., 1st; *Lindens*, in N. J., 1st.

Prairie and Forest Fires.—Oregon, Mo., on the 2nd, 19th, 29th, 31st; Denison, Tex., 4th, (possibly an

aurora,) 10th; Creswell, Kan., 5th, 6th, 13th, 15th, 17th, 26th; Ft. Hays, Kan., 13th; Genoa, Neb., 15th; Dodge City, Kan., 19th, 21st; Cleaveland, Tenn., 24th; Monticello, Iowa, 27th.

Meteors.—2nd, Guttenberg, Nora Springs and Monticello, Iowa. 3rd, Atco, N. J. 4th, Rocky Run, Wis. 7th, Plattsmouth, Neb. 9th, Monticello, Iowa. 13th, Waterburgh, N. Y., Denison, Tex. 14th, Pt. Pleasant, La. 18th, Fall River, Mass. 20th, Contoocookville, N. H. 21st, Fallston, Md. 22nd, Asheville, N. C., Jacksonburg, O., Jackson, Tenn. 26th, Litchfield, Mich. 27th, Monticello, Iowa, Danville, Ky., Wooster, O. 28th, St. Marks, Fla.

Ice-bergs.—21st: Two ice-bergs one hundred and fifty feet high, lat. 44° N., long. $45^{\circ} 30'$ W., 22nd; one two hundred feet high, lat. 44° N., long. $49^{\circ} 20'$ W.

Sunsets.—The characteristics of the sky as indicative of approaching fair or foul weather have been observed daily at sunset at all Signal Service stations. The monthly summaries from 89 stations show that 155 doubtful cases and blanks were recorded and that out of the remaining 2,604 cases, 1,973, or 75.7 per cent., have been followed by the expected weather.

Polar Bands.—1st, Gardiner, Me.; Freehold, N. J.; Carthagen, Ohio. 2d, Guttenberg, Iowa. 3rd, Gardiner, Me.; Wytheville, Va. 7th, Freehold, N. J.; Wytheville, Va. 8th, Wytheville, Va.; Tybee Island, Ga. 9th, Guttenberg, Iowa. 11th, Wytheville, Va.; Duluth, Minn. 13th, Gardiner, Me.; Wytheville, Va. 15th, Duluth, Minn. 16th, Auburn, N. H. 23rd, Auburn, N. H.; Tabor, Iowa. 24th, Milwaukee, Wis. 25th, Auburn, N. H. 26th, Tabor, Iowa. 27th, Monticello, Iowa. 28th, Tybee Island, Ga.; Tabor, Iowa. 29th, Carthagen, Ohio. 30th, Gardiner, Me.

Zodiacal Light.—Savannah, 3th, 4th, 6th, 7th, 9th, 10th, 11th, 14th, 15th, 30th. Tybee Island, 6th, 7th. Macon, Ga., 14th. Cornish, Me., 6th, 13th, 30th. Orono, Me., 31st. Cambridge, Mass., 6th, 9th, 10th, 11th, 15th, 30th. Somerset, Mass., 3rd, 4th, 5th, 6th. Oregon, Mo., 3rd, 9th, 10th, 15th, 16th, 17th. Contoocookville, N. H., 1st, 4th, 6th, 9th, 10th, 15th. Freehold, N. J., 1st. Atco, N. J., 1st, 3rd, 4th, 5th, 10th, 15th, 20th, 30th. Lipden, N. J., 15th. North Arygle, N. Y., 15th. Bellefontaine, Ohio, 10th, Carthagen, Ohio, 4th, 5th, 9th, 10th. Wytheville, Va., 3rd, 4th, 5th, 10th, 15th, 16th. Carbondale, Ill., 16th. Monticello, Iowa, 4th, 6th, 9th, 12th, 14th, 16th, 26th.

Earthquake.—A severe shock was felt at Kingston, Jamaica, on the 19th, 12:55 a. m.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

Albert J. Myers

Brig. Gen. (Ret. Assg^d.) Chief Signal Officer, U. S. A.

Copy furnished for